Attorney Docket No.: 24061.13/TSMC2002-0894

Customer No.: 000027683

WHAT IS CLAIMED IS:

1. A self-contained ventilator, comprising:

a housing having a support member for supporting the pollution source and a filter vertically spaced from the support member for filtering contaminants emitted from the pollution source, the filter and a lower portion of the housing defining a first converging room;

a conduit connecting the first converging room to an upper portion of the housing such that a flow path is defined through the housing and conduit; and

a fan for generating an airflow that follows the flow path.

- 2. The ventilator of claim 1 wherein the housing further includes a distributor vertically spaced from the support member.
- 3. The ventilator of claim 2 wherein the distributor is a plate having a plurality of apertures formed there through.
- 4. The ventilator of claim 1 wherein the support member is a grid.
- 5. The ventilator of claim 1 wherein the filter is an active carbon filter.
- 6. The ventilator of claim 1 wherein the pollution source is a wafer processing kit having undergone semiconductor manufacturing processes.
- 7. The ventilator of claim 2 wherein the distributor and an upper portion of the housing cooperate to define a diverging room.
- 8. The ventilator of claim 7 wherein the distributor and the support member cooperate to define a compartment.
- 9. The ventilator of claim 8 wherein the support member, the filter, and a lower portion of the housing cooperate to define a second converging room.

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10. The ventilator of claim 9 wherein the flow path is defined from the diverging room,

through the distributor, through the compartment, through the support member, through the

second converging room, through the filter, through the first converging room, through the

conduit, and back to the diverging room.

11. The ventilator of claim 1 further comprising at least one wheel connected thereto for

providing the ventilator with mobility.

12. The ventilator of claim 1 further comprising a door for providing access to the interior of

the housing.

13. The ventilator of claim 12 wherein the door includes a peripheral rubber magnet for

adhering the door to the housing when the door is in a closed position.

14. The ventilator of claim 1 wherein the airflow entrains the contaminants to exhaust the

contaminants into the filter.

15. A ventilator for filtering contaminants introduced from a wafer processing system, the

ventilator comprising:

a housing separable from the wafer processing system for receiving and storing one or

more wafers;

a filter positioned inside the housing;

a conduit connected to the housing; and

an airflow generator for providing an airflow along a closed-loop flow path defined

through the housing, the conduit, and the filter.

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16. The ventilator of claim 15 further comprising:

a moving structure so that the ventilator can be moved from the wafer processing system to another wafer processing system while the airflow generator provides the airflow along the closed-loop flow path.

17. A method for filtering contaminants, comprising:

providing a movable housing for storing one or more semiconductor wafers, the housing having a filter disposed therein;

providing a conduit connecting a portion of the housing to another portion of the housing; and

generating an airflow that follows a flow path defined through the housing and the conduit such that the airflow entrains contaminants within the housing to filter the contaminants when passing through the filter.

18. A method for filtering contaminants emitted from a pollution source, comprising: providing a self-contained housing having a support member and a filter disposed interiorly therein, the filter being vertically spaced from the support member;

providing a conduit connecting a portion of the housing to another portion of the housing such that a flow path is defined through the housing and the conduit;

placing the pollution source on the support member;

isolating the interior of the housing from an area surrounding the housing;

generating an airflow that follows the flow path such that the airflow entrains the contaminants emitted from the pollution source and filters the contaminants when passing through the filter.

19. The method of claim 18 further comprising:

moving the self-contained housing from a first processing operation position to a second processing operation position.